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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,765	05/27/2004	Li-Chun Tu	MTKP0069USA	3764
27765	7590	12/05/2006	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION			ELMORE, REBA I	
P.O. BOX 506			ART UNIT	
MERRIFIELD, VA 22116			PAPER NUMBER	
			2189	

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/709,765

Applicant(s)

TU ET AL.

Examiner

Reba I. Elmore

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-39 are presented for examination.

SPECIFICATION

2. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Taiwan on 5/29/03 and 8/27/03. It is noted, however, that applicant has not filed a certified copy of the 092114631 and 092123664 applications as required by 35 U.S.C. 119(b).
3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

35 USC § 112, 1st PARAGRAPH

4. The remaining rejections of claims under 35 USC 112, first paragraph are *maintained* and repeated below. Claim 39 is added to these rejections.
5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 1-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
7. Independent claim 24 has limitations which state 'reducing an executing speed of the microprocessor emulator for a certain period' and 'executing the microprocessor emulator at a

normal speed after the certain period', however, this language is not explained in the specification or drawings. The 'certain period' is not defined in the specification and this time period cannot be determined from either the specification or the drawings.

8. Further elements used in the specification require some type of definition or explanation because these elements are not clearly defined in the memory arts. Examples are:

- a) buffering/controlling device – the specification does not define what type of devices are used for this buffering/controlling device, they are not typically the same element in a memory circuit;
- b) microprocessor-operating-speed control device – the specification does not define or explain what comprises this device;
- c) outputs an operating clock – clock signals are output by some elements but the operating clock itself is not 'output';
- d) the specification does not define a 'data clog';
- e) how does the operating clock disappear, what does this mean in relationship to actual circuitry; and,
- f) how is the operating clock recovered, what does this mean in relationship to actual circuitry.

35 USC § 112, 2ND PARAGRAPH

9. The rejections of claims under 35 USC 112, 2nd paragraph are ***maintained*** and repeated below. Claim 39 is added to this rejection of the claims.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the

subject matter which the applicant regards as his invention.

11. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a) the claim language does not explain how the operating speed of a microprocessor is dynamically adjusted;
- b) it is unclear as to what is meant by the data being either 'well prepared' or 'not well prepared';
- c) the claims state the executing speed of the microprocessor is either lower than the normal speed or suspended, however, nothing is given in the specification for performing this action;
- d) an external circuit or a circuit installed in the microprocessor is never described in such a way that one of ordinary skill would know how to make and use it;
- e) it is unclear as to what is meant by 'access a predetermined number of digital data', is this bits of data, bytes of data, data words or data addresses;
- f) it is not clear as to how the data being stored in the buffering/controlling device relates to reducing the operating speed of the microprocessor;
- g) what element is used in 'recovering the operating speed' of the microprocessor; and,
- h) the buffering/controlling device is claimed as being either a FIFO, DRAM or SRAM, however, these are memory element and but themselves cannot provide control functions.

It is not possible from either the specification or the claims to determine the scope of this language or to determine the metes and bounds of the claims.

Due to the ambiguities and confusion in claims 2-21 and 23-26 as cited above, no art has been applied thereto, see *In re Steele*, 49 CCPA 1295, 305 F. 2d 859, 134 USPQ 292 (1962) and *In re Wilson*, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). The examiner will not speculate as to the intended meaning.

RESPONSE TO APPLICANT'S REMARKS

12. Applicant's arguments filed September 28, 2006 have been fully considered but they are not persuasive.

13. The specification and claims fail to discuss details for enabling a buffering/controlling device for controlling the operating clock. Also, having an element called 'microprocessor-operating-speed control device' does not clearly define an element or device which provides or enables microprocessor operating speed control. There are no clock gating techniques given for making an operating clock disappear. Clock signals are either high or low but they are not typically described as disappearing.

14. Latency introduced to a system processing time does not reduce or increase operating speed. The length of time required to execute a program instruction because data must be retrieved from a memory device for the buffering/controlling device is not the same as a processor operation speed. Terminology throughout the specification and claims is confusing in that the disclosure does not appear to recognize the difference between adjusting an operating clock and adjusting executing speed of a microprocessor. A clock rate of a microprocessor is one of the prime determinates of its overall processing speed but the operating clock is not the same thing as the processing speed.

15. The buffering/controlling device is now claimed as comprising a FIFO storage structure,

a dynamic random access memory (DRAM) or a static random access memory (SRAM), however, the controlling aspect of the device is never explained or discussed.

16. All systems have clocks for timing operations, therefore, describing steps in relationship to 'a certain time' or 'the certain time' is so broad as to be meaningless and therefor indefinite.

OFFICE ACTION FINALITY

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CONCLUSION

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (571) 272-4192. The examiner can normally be reached on Tuesday and Thursday from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor

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for AU 2189, Reginald G. Bragdon, can be reached for general questions concerning this application at (571) 272-4204. Additionally, the official fax phone number for the art unit is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center central telephone number is (571) 272-2100.



Reba I. Elmore
Primary Patent Examiner
Art Unit 2189

Thursday, November 30, 2006
